

NAME _____

PERIOD _____ DATE _____

SPECIAL FUNCTIONS

Using the given domain and type of function, determine the range.

- | | | |
|--|------------------|-------|
| 1. $\{-3, -\sqrt{2}, 0, \frac{10}{9}, 9\}$ | identity | _____ |
| 2. $\{-3, -\sqrt{2}, 0, \frac{10}{9}, 9\}$ | absolute value | _____ |
| 3. $\{5.7, 4, 3\frac{1}{4}, \frac{2}{3}, -2.2\}$ | greatest integer | _____ |
| 4. $\{a, b, c, d, e\}$ | identity | _____ |
| 5. $\{-7, 3.4, 0, -1.8, \sqrt{3}\}$ | absolute value | _____ |

If $f(x) = |x|$, compute:

$f(2) = \underline{\hspace{2cm}}$ $f(-1) = \underline{\hspace{2cm}}$ $f(3.5) = \underline{\hspace{2cm}}$ $f(-\sqrt{2}) = \underline{\hspace{2cm}}$

If $f(x) = [x]$, compute:

$f(-\pi) = \underline{\hspace{2cm}}$ $f(\sqrt{2}) = \underline{\hspace{2cm}}$ $f(-2.1) = \underline{\hspace{2cm}}$ $f(3.7) = \underline{\hspace{2cm}}$

If $f(x) = |x| - x + [x]$, compute:

$f(1) = \underline{\hspace{2cm}}$ $f(\sqrt{2}) = \underline{\hspace{2cm}}$ $f(\pi) = \underline{\hspace{2cm}}$ $f(-2.3) = \underline{\hspace{2cm}}$

For each function below, determine the rule which relates the ordered pairs.

- | | |
|--------------------------------------|-------|
| 1. $\{(-1,1) (-2,2) (1,-1) (2,-2)\}$ | _____ |
| 2. $\{(2,0) (0,0) (-1,0) (-3,0)\}$ | _____ |
| 3. $\{(-1,-3) (0,-1) (1,1) (2,3)\}$ | _____ |